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TRANSHEIGHT CONSULTANTS PVT LTD
#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092
098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08	
Physical Requirements for Coarse Aggregate for Bituminous Concrete	
IS: 2386 Part-I, III & IV	Date: 10-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	09-02-2020
Sample Type	Bituminous Concrete (BC)
Date of Test	10-02-2020

Table 500-16 : Physical Requirements of Coarse Aggregate for Bituminous Concrete (BC)

Peperty	Test	Result	Specification	Method of Test
Partial Shape	Flakiness Index	15.64	Combination Flakiness & Elongation Index for BC is Maximum 35%	IS: 2386 Part-I
	Elongation Index	13.45		
Strength	Aggregate Impact Value	22.4	Maximum 24%	IS: 2386 Part-IV
Specific Gravity	Specific Gravity	2.51	Maximum 2.7	IS: 2386 Part-III
Water Absorption	Water Absorption	1.32%	Maximum 2%	IS: 2386 Part-III

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client

Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P..

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Reults of Gradation for Bituminous Concrete (BC)

IS 2386 (Part-1) 1963 (Reaffirmed-2007)	Date: 10-02-2020

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	09-02-2020
Type of Mix	Bituminous Concrete (BC)
Date of Test	10-02-20
Total wt of the sample (gms):	5000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	174	174	3.5	96.5	90-100	Satisfactory
9.5	664	838	16.8	83.2	70-88	Satisfactory
4.75	1124	1962	39.2	60.8	53-71	Satisfactory
2.36	485	2447	48.9	51.1	42-56	Satisfactory
1.18	325	2772	55.4	44.6	34-48	Satisfactory
0.6	335	3107	62.1	37.9	26-38	Satisfactory
0.3	510	3617	72.3	27.7	18-28	Satisfactory
0.15	455	4072	81.4	18.6	12-20	Satisfactory
0.075	441	4513	90.3	9.7	4-10	Satisfactory
PAN	487	5000	100.0	0.0	0	Satisfactory

Remarks: Satisfactory

PMC Client Contractor

Transheight Consultants Pvt. Ltd. Bangalore

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08	
Test Report on Bitumen	
IS: 1201-1220 (1978) (Reaffirmed-2004)	Date:10-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Date of Reciept	09-02-2020
Sample Type	Bitumen (VG-30)
Date of Test	10-02-2020

Test Results

Sl. No	Name of Test	Result	Requirements as per IS: 73-2013
1	Penetration at 25°C, 1/10th mm	64	60 to 70
2	Softening Point, °C	54	Min. 47°C
3	Ductility, cm	54	Min. 40cm
4	Viscocity Test,Poise(Min)	2785	Range 2400-3600
5	Flash Point,°C	225	Min. 220°C

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore

PMC Client Contractor

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Result on Stability of Mix

IS: 1201 &1220 (1978) (Reaffirmed-2004)	Date: 10-02-2020
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Date of Reciept	09-02-2020
Sample Type	Bitumen
Date of Test	10-02-2020

Test Results of the test conducted on the Bituminos Concrete (BC) mix sample are as follow

Sl. No	Name of Test	Test-1	Test-2	Specified limit as per MORTH specification table 500-11
1	Marshall Stability at 60^{0}C	15.64	15.82	10 KN (Minimum)
2	Marshal flow at 60^{0}C	2.5	2.55	2-4
3	Percentage air Voids	4.21	4.41	3-6
4	Percent Voids in mineral Aggregate (VMA %)	14.35	14.65	13-15
5	Percent Voids in mineral Bitumen (VFB %)	71.25	71.36	65-75
5	Density, g/cc	2.41	2.47	-

Remarks :

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PMC Client Contractor

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Reults of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)

IS 2386 (Part-1) 1963 (Reaffirmed-2011)	Date: 19-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Byatarayanapura,Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Type of Mix	Bituminous Concrete (BC)
Date of Test	19-02-20

Calculation

	Chainage:		
	Trial 1	Trial 2	Trial 3
Wt of empty Bowl (g)	1031	1031	1032
Wt of empty Bowl + Mix before extraction (g)	1531	1531	1532
Wt of empty Bowl + Mix after extraction (g)	1505.2	1505.1	1505.9
Wt of filter paper before extraction (g)	3.5	6	3.5
Wt of filter paper after extraction (g)	5.32	5.51	5.32
Wt of fines (g)	1.82	-0.49	1.82
Wt of aggrigate (g)	476.03	473.63	475.67
Wt of bitumin (g)	25.79	25.88	26.15
% binder contents in mix	5.42	5.46	5.50
Avg binder contents in mix (%)	5.46		

Remarks :

Transheight Consultants P. Ltd. Bangalore

PMC **Client** **Contractor**

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bengalore.

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Test Results of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)

Date: 19-02-2020

After Extraction (Trial-1)

Total wt of the sample (gms): 476.03

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	14	14	2.9	97.1	90-100	Satisfactory
9.5	95	109	22.9	77.1	70-88	Satisfactory
4.75	112	221	46.4	53.6	53-71	Satisfactory
2.36	48	269	56.5	43.5	42-56	Satisfactory
1.18	35	304	63.9	36.1	34-48	Satisfactory
0.6	42	346	72.7	27.3	26-38	Satisfactory
0.3	32	378	79.4	20.6	18-28	Satisfactory
0.15	22	400	84.0	16.0	12-20	Satisfactory
0.075	41	441	92.6	7.4	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-2)

Total wt of the sample (gms): 473.63

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	7	7	1.5	98.5	90-100	Satisfactory
9.5	93	100	21.0	79.0	70-88	Satisfactory
4.75	108	208	43.7	56.3	53-71	Satisfactory
2.36	53	261	54.8	45.2	42-56	Satisfactory
1.18	31	292	61.3	38.7	34-48	Satisfactory
0.6	46	338	71.0	29.0	26-38	Satisfactory
0.3	41	379	79.6	20.4	18-28	Satisfactory
0.15	35	414	87.0	13.0	12-20	Satisfactory
0.075	42	456	95.8	4.2	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-3)

Total wt of the sample (gms): 475.67

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	8	8	1.7	98.3	90-100	Satisfactory
9.5	93	101	21.2	78.8	70-88	Satisfactory
4.75	110	211	44.3	55.7	53-71	Satisfactory
2.36	46	257	54.0	46.0	42-56	Satisfactory
1.18	43	300	63.0	37.0	34-48	Satisfactory
0.6	45	345	72.5	27.5	26-38	Satisfactory
0.3	33	378	79.4	20.6	18-28	Satisfactory
0.15	25	403	84.7	15.3	12-20	Satisfactory
0.075	36	439	92.2	7.8	4-10	Satisfactory

Remarks: Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore

Client Contractor

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .			
Test Reults of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)			
IS 2386 (Part-1) 1963 (Reaffirmed-2011)			Date: 19-02-2020
Lab I'd	ISO/IEC17025:2005		
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.		
Consultant	Transheight Consultants Private Limited		
Contractor	B.B Umesh (S.M.L.P Asphats)		
Customer Reference	BBMP/EE/BTP/WO/110/2019-20		
Source of Sample	Sample supplied by Agency		
Date of Reciept	19-02-20		
Type of Mix	Bituminous Concrete (BC)		
Date of Test	19-02-20		
Calculation			
	Chainage:		
	Trial 1	Trial 2	Trial 3
Wt of empty Bowl (g)	1034	1033	1035
Wt of empty Bowl + Mix before extraction (g)	1534	1533	1535
Wt of empty Bowl + Mix after extraction (g)	1507.9	1507.2	1509.2
Wt of filter paper before extraction (g)	3.5	3.5	3.5
Wt of filter paper after extraction (g)	5.21	5.55	5.42
Wt of fines (g)	1.71	2.05	1.92
Wt of aggrigate (g)	475.56	476.2	471.92
Wt of bitumin (g)	26.15	25.85	25.8
% binder contents in mix	5.50	5.43	5.47
Avg binder contents in mix (%)	5.46		
Remarks :			
PMC	Client	Contractor	

Transheight Consultants Pvt. Ltd. Bangalore

Assistant Executive Engineer
Kodigehalli Sub Division.

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Test Results of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)

Date: 08-11-2019

After Extraction (Trial-1)

Total wt of the sample (gms): 475.56

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	13	13	2.7	97.3	90-100	Satisfactory
9.5	74	87	18.3	81.7	70-88	Satisfactory
4.75	115	202	42.5	57.5	53-71	Satisfactory
2.36	70	272	57.2	42.8	42-56	Satisfactory
1.18	28	300	63.1	36.9	34-48	Satisfactory
0.6	23	323	67.9	32.1	26-38	Satisfactory
0.3	54	377	79.3	20.7	18-28	Satisfactory
0.15	38	415	87.3	12.7	12-20	Satisfactory
0.075	35	450	94.6	5.4	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-2)

Total wt of the sample (gms): 476.2

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	16	16	3.4	96.6	90-100	Satisfactory
9.5	75	91	19.1	80.9	70-88	Satisfactory
4.75	108	199	41.8	58.2	53-71	Satisfactory
2.36	70	269	56.6	43.4	42-56	Satisfactory
1.18	31	300	63.1	36.9	34-48	Satisfactory
0.6	12	312	65.6	34.4	26-38	Satisfactory
0.3	40	352	74.0	26.0	18-28	Satisfactory
0.15	52	404	85.0	15.0	12-20	Satisfactory
0.075	45	449	94.4	5.6	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-3)

Total wt of the sample (gms): 471.92

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	10	10	2.1	97.9	90-100	Satisfactory
9.5	73	83	17.5	82.5	70-88	Satisfactory
4.75	115	198	41.6	58.4	53-71	Satisfactory
2.36	75	273	57.4	42.6	42-56	Satisfactory
1.18	31	304	63.9	36.1	34-48	Satisfactory
0.6	22	326	68.6	31.4	26-38	Satisfactory
0.3	42	368	77.4	22.6	18-28	Satisfactory
0.15	40	408	85.8	14.2	12-20	Satisfactory
0.075	38	446	93.8	6.2	4-10	Satisfactory

Remarks: Satisfactory

PMC — Client — Contractor

Transheight Consultants Pvt. Ltd. Bangalore

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Reults of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)

IS 2386 (Part-1) 1963 (Reaffirmed-2011)	Date: 19-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Byatarayanapura,Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Date of Reciept	19-02-20
Type of Mix	Bituminous Concrete (BC)
Date of Test	19-02-20

Calculation

	Chainage:		
	Trial 1	Trial 2	Trial 3
Wt of empty Bowl (g)	1031	1031	1032
Wt of empty Bowl + Mix before extraction (g)	1531	1531	1532
Wt of empty Bowl + Mix after extraction (g)	1505.2	1504.9	1505.8
Wt of filter paper before extraction (g)	3.5	3.5	3.5
Wt of filter paper after extraction (g)	5.23	5.38	5.34
Wt of fines (g)	1.73	1.88	1.84
Wt of aggrigate (g)	475.93	475.78	475.64
Wt of bitumin (g)	25.8	26.1	26.2
% binder contents in mix	5.42	5.49	5.51
Avg binder contents in mix (%)		5.47	

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client **Contractor**

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.

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Test Results of Bitumen Binder Content and Gradation for Bituminous Concrete (BC)

Date: 07-11-2019

After Extraction (Trial-1)

Total wt of the sample (gms):			475.93			
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	14	14	2.9	97.1	90-100	Satisfactory
9.5	95	109	22.9	77.1	70-88	Satisfactory
4.75	108	217	45.6	54.4	53-71	Satisfactory
2.36	52	269	56.5	43.5	42-56	Satisfactory
1.18	32	301	63.2	36.8	34-48	Satisfactory
0.6	45	346	72.7	27.3	26-38	Satisfactory
0.3	32	378	79.4	20.6	18-28	Satisfactory
0.15	25	403	84.7	15.3	12-20	Satisfactory
0.075	43	446	93.7	6.3	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-2)

Total wt of the sample (gms):			475.78			
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	10	10	2.1	97.9	90-100	Satisfactory
9.5	92	102	21.4	78.6	70-88	Satisfactory
4.75	108	210	44.1	55.9	53-71	Satisfactory
2.36	57	267	56.1	43.9	42-56	Satisfactory
1.18	35	302	63.5	36.5	34-48	Satisfactory
0.6	41	343	72.1	27.9	26-38	Satisfactory
0.3	38	381	80.1	19.9	18-28	Satisfactory
0.15	26	407	85.5	14.5	12-20	Satisfactory
0.075	43	450	94.6	5.4	4-10	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-3)

Total wt of the sample (gms):			475.64			
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	12	12	2.5	97.5	90-100	Satisfactory
9.5	94	106	22.3	77.7	70-88	Satisfactory
4.75	115	221	46.4	53.6	53-71	Satisfactory
2.36	48	269	56.5	43.5	42-56	Satisfactory
1.18	40	309	64.9	35.1	34-48	Satisfactory
0.6	38	347	72.9	27.1	26-38	Satisfactory
0.3	38	385	80.9	19.1	18-28	Satisfactory
0.15	30	415	87.2	12.8	12-20	Satisfactory
0.075	25	440	92.5	7.5	4-10	Satisfactory

Remarks: Satisfactory

Bangalore PMC

Client Contractor

Assistant Executive Engineer,
Kodigehalli Sub Division,

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TRANSHEIGHT CONSULTANTS PVT LTD
#1192, A Block, 3rd Cross, 5th Main,
Sahakarnagar, Bangalore-560092
098869 13195, 080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .			
Test Reults of Bitumen Binder Content and Gradation for Bituminous Macadam (BM-II)			
IS 2386 (Part-1) 1963 (Reaffirmed-2011)		Date: 19-02-2020	
Lab I'd	ISO/IEC17025:2005		
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.		
Consultant	Transheight Consultants Private Limited		
Contractor	B.B Umesh (S.M.L.P Asphats)		
Customer Reference	BBMP/EE/BTP/WO/110/2019-20		
Source of Sample	Sample supplied by Agency		
Type of Mix	Bituminous Macadam (BM-II)		
Date of Test	19-02-20		
Calculation			
	Chainage:		
	Trial 1	Trial 2	Trial 3
Wt of empty Bowl (g)	1031	1032	1030
Wt of empty Bowl + Mix before extraction (g)	1531	1532	1530
Wt of empty Bowl + Mix after extraction (g)	1514.3	1515.2	1513.4
Wt of filter paper before extraction (g)	3.5	3.5	3.5
Wt of filter paper after extraction (g)	5.25	5.32	5.28
Wt of fines (g)	1.75	1.82	1.78
Wt of aggrigate (g)	485.05	484.97	485.18
Wt of bitumin (g)	16.7	16.85	16.6
% binder contents in mix	3.44	3.47	3.42
Avg binder contents in mix (%)	3.45		
Remarks :			
PMC	Client	Contractor	

Transheight Consultants Pvt. Ltd. Bangalore

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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Test Reults of Bitumen Binder Content and Gradation for Bituminous Macadam (BM-II)

19-02-20

After Extraction (Trial-1)

Total wt of the sample (gms): 485.05

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
26.5	0	0	0.0	100	100	Satisfactory
19	9	9	1.9	98.1	90-100	Satisfactory
13.2	65	74	15.3	84.7	56-88	Satisfactory
4.75	285	359	74.0	26.0	16-36	Satisfactory
2.36	48	407	83.9	16.1	4-19	Satisfactory
0.3	65	472	97.3	2.7	2-10	Satisfactory
0.075	10	482	99.4	0.6	0-8	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-2)

Total wt of the sample (gms): 484.97

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
26.5	0	0	0.0	100	100	Satisfactory
19	11	11	2.3	97.7	90-100	Satisfactory
13.2	75	86	17.7	82.3	56-88	Satisfactory
4.75	305	391	80.6	19.4	16-36	Satisfactory
2.36	49	440	90.7	9.3	4-19	Satisfactory
0.3	31	471	97.1	2.9	2-10	Satisfactory
0.075	7	478	98.5	1.5	0-8	Satisfactory

Remarks: Satisfactory

After Extraction (Trial-3)

Total wt of the sample (gms): 485.18

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-23) (Grading-II)	Remarks
26.5	0	0	0.0	100	100	Satisfactory
19	10	10	2.1	97.9	90-100	Satisfactory
13.2	81	91	18.8	81.2	56-88	Satisfactory
4.75	315	406	83.7	16.3	16-36	Satisfactory
2.36	35	441	90.9	9.1	4-19	Satisfactory
0.3	32	473	97.5	2.5	2-10	Satisfactory
0.075	9	482	99.4	0.6	0-8	Satisfactory

Remarks: Satisfactory

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Determination of Flakiness Index and Elongation Index of Coarse Aggregate

IS 2386 (Part-1) 1963 (Reaffirmed-2007)	Date: 10-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	10-02-2020
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	10-02-2020

Results

Sl. No	Index	Percentage of Flakiness and Elongation Index	Specified limits as per MORTH (specification table 400-12)
1	Flakines Index (%)	19.00	Combined Flakiness and Elongation Index for WMM is Maximum 35%
2	Elongation Index (%)	16.00	
3	Water Absorption (%)	0.95	Max 2%
4	Aggregate Impact Value (%)	14.21	Aggregate Impact Value for WMM is Maximum 35%
5	Dry Desnsity (MDD) gm/cc	2.35	-
6	Moisture in (OMC) %	5.12	

Remarks :

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Client **Contractor**

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Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Reults of Gradation for Wet Mix Macadam (WMM)

IS: 2386 Part I	Date: 10-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	10-02-2020
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	10-02-2020
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	11000	Cumulative % of Passing	Specifcations as per MORTH (Table 400-13)	Remarks
53	0	0.0	0.00	100	100	Satisfactory
45	330	330.0	3.00	97.0	95-100	Satisfactory
22.4	3740	4070.0	37.00	63.0	60-80	Satisfactory
11.2	2145	6215.0	56.50	43.5	40-60	Satisfactory
4.75	1837	8052.0	73.20	26.8	25-40	Satisfactory
2.36	1100	9152.0	83.20	16.8	15-30	Satisfactory
0.6	858	10010.0	91.00	9.0	8-22	Satisfactory
0.075	946	10956.0	99.60	0.4	0-5	Satisfactory

Remarks: Satisfactory

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

FIELD DENSITY BY SAND REPLACEMENT METHOD

IS 2720 (Part-28)	Date: 15-02-2020
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike, Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	15-02-2020

Description of materials:	Subgrade		
Lab.MDD (gm/cc) =	2.350	Lab.OMC(%) =	5.59
Bulk Density of sand:	1.385	Sand retained in cone (gm)=W1	848.00

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	5346.50	5347.20
2	Wt of sand + cylinder before pouring(gm) (w3)	15000.00	15000.00
3	Wt of sand+ cylinder after pouring (gm)(w4)	11125.71	11140.49
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	3026.29	3011.51
5	Volume of sand in hole (V = W5/Ysand)	2185.05	2174.37
6	Bulk density (gm/cc) (Yb= W2/v)	2.45	2.46
7	Moisture meter reading (%)	6.03	6.24
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.31	2.31
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.2**	**98.5**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.35**	

Remarks: Satisfactory

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Client **Contractor**

Assistant Executive Engineer,
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Yelahanka Zone, B.B.M.P

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Physical Properties of Cement-53 Grade

IS: 12269-2013, IS: 4031(Part-1,2,3,4,5,6,11)-1988	Date: 19-10-2019

Lab I'd	ISO/IEC17025:2005	
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.	
Consultant	Transheight Consultants Private Limited	
Contractor	B.B Umesh (S.M.L.P Asphats)	
Customer Reference	BBMP/EE/BTP/WO/110/2019-20	
Source of Sample	Sample supplied by Agency	
Sample Condition	Satisfactory	
Date of Reciept	18-10-2019	
Sample Type	Birla Super 53-Grade	
Date of Test	19-10-2019	
Environmental Condition during test	Temperature:	26°C
	Humidity:	72%

Test Results

Sl. No	Physical Properties	Result	Requirements as per IS: 12269-2013
1	Finess by dry sieving (%)	1.82	-
2	Finess by Air permiability method (m^2/kg, Min)	292.45	225 m2
3	Specific gravity /Density, (gm/cm)	3.39	-
4	Standard Consistency (%)	29.45%	Not Specified
5	Initial Setting time	148 Minutes	Not less than 30 minutes
6	Final Setting Time	260 Minutes	Not more than 15 minutes
7	Soudness (Le Chateliers Method)	1.9 mm	Not more than 10 mm

Remarks :

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Physical Properties of Cement-53 Grade

IS: 12269-2013, IS: 4031(Part-4,6)-1988	Date: 19-10-2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Birla Super 53-Grade
Date of Test	19-10-2019
Environmental Condition during test	Temperature: 26°C
	Humidity: 72%

Compressive Strength

Sl. No	Physical Properties	Result	Requirements as per IS: 12269-2013
1	3 Days	28.7 N/mm^2	Not less than 27 N/mm2
2	7 Days	41.4 N/mm^3	Not less than 37 N/mm3
3	28 Days	54.5 N/mm^4	Not less than 53 N/mm4

Remarks :

Bangalore
PMC

Client Contractor

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
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098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date: 19-10-2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Fine Aggregate
Date of Test	19-10-2019

Total wt of the sample (gms):	1000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016			
					Grading Zone-1	Grading Zone-2	Grading Zone-3	Grading Zone-4
10	0	0	0.0	100	100	100	100	100
4.75	31	31	3.1	96.9	90-100	90-100	90-100	95-100
2.36	65	96	9.6	90.4	60-95	75-100	85-100	95-100
1.18	251	347	34.7	65.3	30-70	55-90	75-100	90100
600	217	564	56.4	43.6	15-34	35-59	60-79	80-100
300	205	769	76.9	23.1	5-20	8-30	12-40	15-50
150	182	951	95.1	4.9	0-10	0-10	0-10	0-15
PAN	49	1000	100.0	0.0	-	-	-	-

Result: The Tested Sample Conforms to Grading Zone-II

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client **Contractor**

Assistant Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone, B.B.M.P.
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TRANSHEIGHT
PAVING FUTURE

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date: 19-10-2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Fine Aggregate
Date of Test	19-10-2019

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Water Absorption (%)	1.68	-
2	Specific Gravity	2.52	-
3	Material Finer than 75 micron (%)	7.15	Uncrushed fine Aggregate Max 3% Crushed Fine Aggregate Max 15% Mixed Fine Aggregate Max 12% Manufacture Fine Aggregate Max 10%

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore

PMC Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.
Bengaluru

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3 & 4)-1963 (Reaffirmed-2012)	Date: 19-10-2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Coarse Aggregate
Date of Test	19-10-2019

Sieve Analysis (Particle Size Distribution) of 20mm Down Coarse Aggregate

Total wt of the sample (gms):			5000		
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016
40	0	0	0.0	100	100
20	252	252	5.0	95.0	90-100
10	2432	2684	53.7	46.3	20-55
4.75	2128	4812	96.2	3.8	0-10
PAN	188	5000	100.0	0.0	-

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore

PMC Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division,
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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date: 19-10-2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Coarse Aggregate
Date of Test	19-10-2019

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Flakines Index (%)	15.24	Combined Flakiness and Elongation Index ahall nor exceed 40% for uncrushed and crushed aggregate
2	Elongation Index (%)	13.58	
3	Specific Gravity	2.44	-
4	Bulk Density (Loose) (Kg/l)	1.62	-
5	Bulk Density (Composed) (Kg/l)	1.58	-
6	Water Absorption (%)	0.25	-
7	Aggregate Crushing Value (%)	22.57	Max 30% for Aggregates to be used in concrete for wearing surfaces, In case aggregate Crushing Value exceeds 30% then the test for 10% fines should be conducted for aggregate to be used in concrete oter tha for wearing surfaces
8	Aggregate Impact Value (%)	23.25	Max 30% for aggregate to be used in concrete for wearing surfaces, 45% for aggregate to be used in concrete other than for wearing surface.

Remarks :

PMC Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.
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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3 & 4)-1963 (Reaffirmed-2012)	Date: 19-10-2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Coarse Aggregate
Date of Test	19-10-2019

Sieve Analysis (Particle Size Distribution) of 40mm Down Coarse Aggregate

Total wt of the sample (gms):			15000		
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016
80	0	0	0	100	100
40	561	561	3.7	96.3	90-100
20	5628	6189	41.3	58.7	30-70
10	4352	10541	70.3	29.7	10-35
4.75	4234	14775	98.5	1.5	0-5
PAN	225	15000	100.0	0.0	-

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client Contractor

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012) | Date: 19-10-2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Coarse Aggregate
Date of Test	19-10-2019

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Flakines Index (%)	11.25	Combined Flakiness and Elongation Index ahall nor exceed 40% for uncrushed and crushed aggregate
2	Elongation Index (%)	12.54	
3	Specific Gravity	2.32	-
4	Bulk Density (Loose) (Kg/l)	1.54	-
5	Bulk Density (Composed) (Kg/l)	1.32	-
6	Water Absorption (%)	0.9	-

Remarks :

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client

Contractor

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Steel

IS: 1786-2008, IS: 1608-2005 (Reaffirmed-2011), IS: 1599-2012	Date: 19-10-2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	18-10-2019
Sample Type	Meenakshi
Date of Test	19-10-2019

Sl No.	Identification of Sample	Grade of the Sample	Diameter of the Steel Bar	Weight of the Sample	Yield Stress	Tensile Strength	Elongation	Bend Test	Rebend Test
			mm	kg/m	N/mm^2	N/mm^2	%		
1	Meenakshi	Fe500	8.0	0.391	512	652	20	Satisfactory	Satisfactory
2	Meenakshi	Fe500	10.0	0.616	528	672	20	Satisfactory	Satisfactory
3	Meenakshi	Fe500	12.0	0.888	544	668	20	Satisfactory	Satisfactory

Result:

Transheight Consultants Pvt. Ltd. Bangalore. BBMP

Client Contractor

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
Bangalore.

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098869 13195,080236

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | Date: 30/10/2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	23-10-2019
Sample Type	Column Concrete
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 7 Days Compressive Strength
Date of Test	30-10-2019

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	Column Concrete	M20	23-10-2019	30-10-2019	150x150x150	22500	9.05	392.8	17.5	17.02
2	Column Concrete	M20	23-10-2019	30-10-2019	150x150x150	22500	8.482	376	16.7	
3	Column Concrete	M20	23-10-2019	30-10-2019	150x150x150	22500	8.809	380.2	16.9	

Result:

Transheight Consultants Pvt Ltd
PMC

Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.
Bangalore.

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TRANSHEIGHT CONSULTANTS PVT L
#1192,'A'Block,3rdCross, 5th
Sahakarnagar,Bangalore-56
098869 13195,080236 2

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5)	Date: 20/11/2019
Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	23-10-2019
Sample Type	Column Concrete
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 28 Days Compressive Strength
Date of Test	20-11-2019

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	Column Concrete	M20	23-10-2019	20-11-2019	150x150x150	22500	8.425	510.2	22.7	22.71
2	Column Concrete	M20	23-10-2019	20-11-2019	150x150x150	22500	8.461	513	22.8	
3	Column Concrete	M20	23-10-2019	20-11-2019	150x150x150	22500	8.895	509.8	22.7	

Result:

PMC Client Contractor

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
Bangalore.

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TRANSHEIGHT
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TRANSHEIGHT CONSULTANTS PVT LTD
#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092
098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date:09/11/2019**

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	02-11-2019
Sample Type	Community hall - Chejja Slab Concrete
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 7 Days Compressive Strength
Date of Test	09-11-2019

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	Chejja slab Concrete	M20	02-11-2019	09-11-2019	150x150x150	22500	9.06	385.1	17.1	17.17
2	Chejja slab Concrete	M20	02-11-2019	09-11-2019	150x150x150	22500	8.492	381.6	17.0	
3	Chejja slab Concrete	M20	02-11-2019	09-11-2019	150x150x150	22500	8.805	392.3	17.4	

Result:

Transheight Consultants Pvt. Ltd. Bangalore PMC

Client **Contractor**

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore

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TRANSHEIGHT CONSULTANTS PVT LTD
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Sahakarnagar,Bangalore-560092
098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5)	Date: 30/11/2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	02-11-2019
Sample Type	Community hall - Chejja Slab Concrete
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 28 Days Compressive Strength
Date of Test	30-11-2019

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	Chejja slab Concrete	M20	02-11-2019	30-11-2019	150x150x150	22500	8.425	520.5	23.1	22.86
2	Chejja slab Concrete	M20	02-11-2019	30-11-2019	150x150x150	22500	8.641	513	22.8	
3	Chejja slab Concrete	M20	02-11-2019	30-11-2019	150x150x150	22500	8.895	509.8	22.7	

Result:

PMC Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
Bangalore.

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Sahakarnagar,Bangalore-560092
098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08 .

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5)	Date: 04/11/2019

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	04-11-2019
Sample Type	Community Hall - Staircase
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 7 Days Compressive Strength
Date of Test	11-11-19

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	Staircase Concrete	M20	04-11-2019	11-11-19	150x150x150	22500	8.94	381.5	17.0	17.34
2	Staircase Concrete	M20	04-11-2019	11-11-19	150x150x150	22500	8.52	396.2	17.6	
3	Staircase Concrete	M20	04-11-2019	11-11-19	150x150x150	22500	8.812	392.5	17.4	

Result:

Transheight Consultants Pvt Ltd Bangalore

PMC Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.
Bangalore.

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Sahakarnagar,Bangalore-560092
098869 13195,080236 29195

Name of work: Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number - 08

Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date:02-12-2019**

Lab I'd	ISO/IEC17025:2005
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	04-11-2019
Sample Type	Community Hall - Staircase
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 28 Days Compressive Strength
Date of Test	02-12-2019

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	Staircase Concrete	M20	04-11-2019	02-12-2019	150x150x150	22500	8.459	491.5	21.8	21.95
2	Staircase Concrete	M20	04-11-2019	02-12-2019	150x150x150	22500	8.467	501.2	22.3	
3	Staircase Concrete	M20	04-11-2019	02-12-2019	150x150x150	22500	8.956	489	21.7	

Result:

Transheight Consultants Pvt. Ltd. Bangalore PME

Client Contractor

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.
Bangalore

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